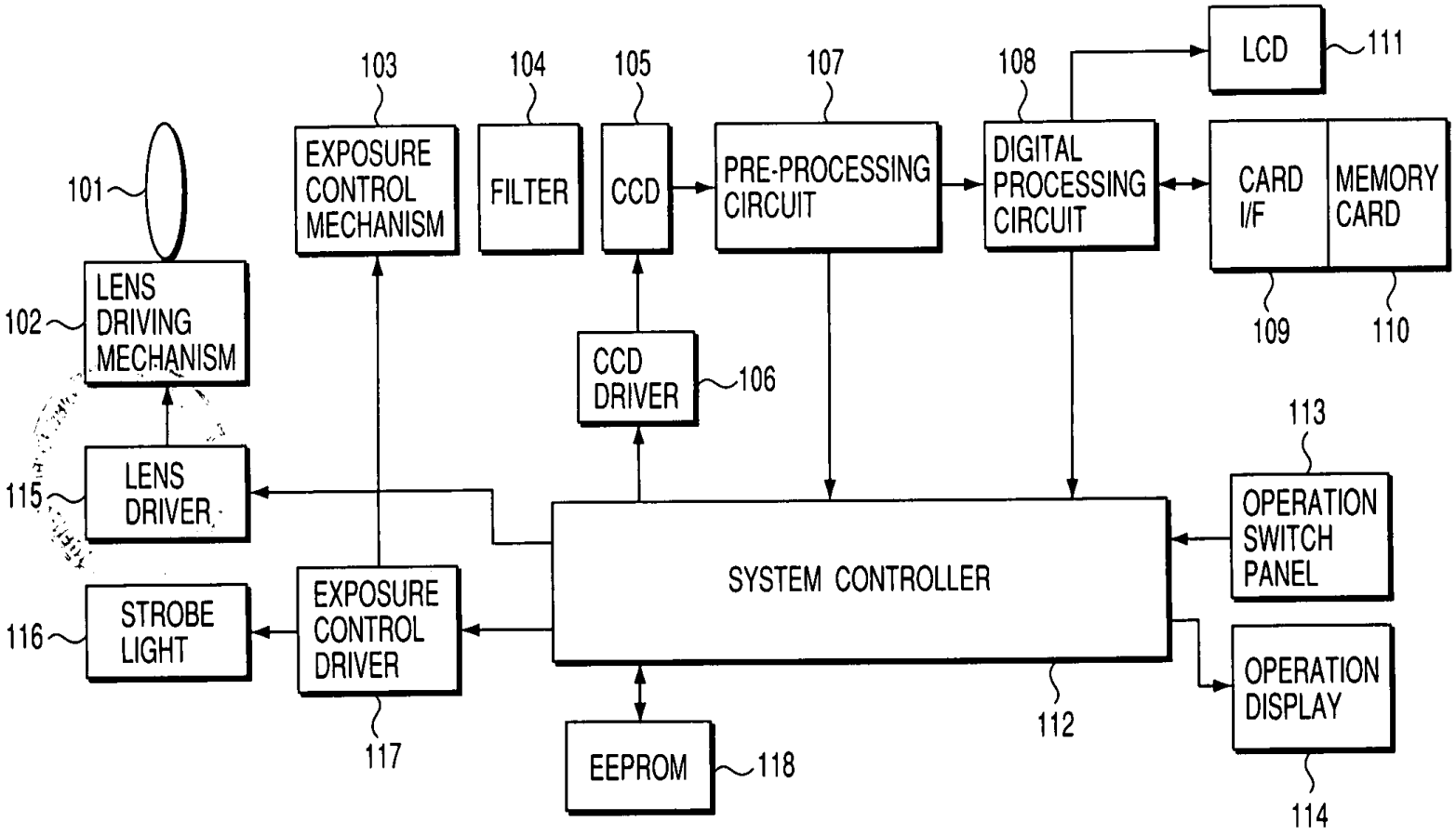
101
LENS DRIVING MECHANISM
102
LENS DRIVER
115
STROBE LIGHT
116
EXPOSURE CONTROL MECHANISM
103
FILTER
104
CCD
105
CCD DRIVER
106
EXPOSURE CONTROL DRIVER
117
PRE-PROCESSING CIRCUIT
107
DIGITAL PROCESSING CIRCUIT
108
SYSTEM CONTROLLER
112
EEPROM
118
LCD
111
CARD I/F
MEMORY CARD
109
110
OPERATION SWITCH PANEL
113
OPERATION DISPLAY
114

FIG. 1

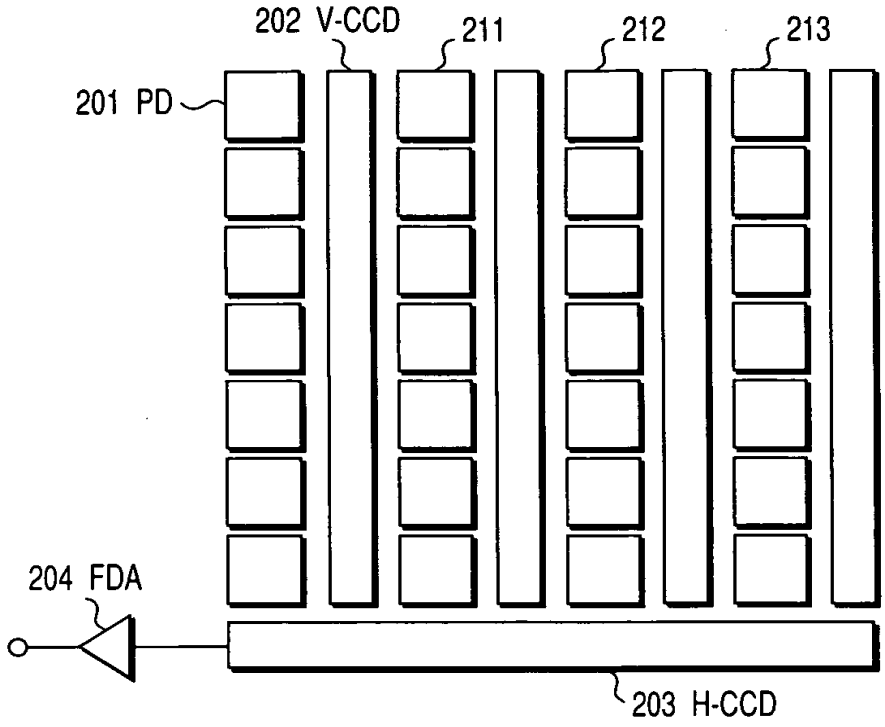
202 V-CCD
211
212
213
201 PD
204 FDA
203 H-CCD

FIG. 2

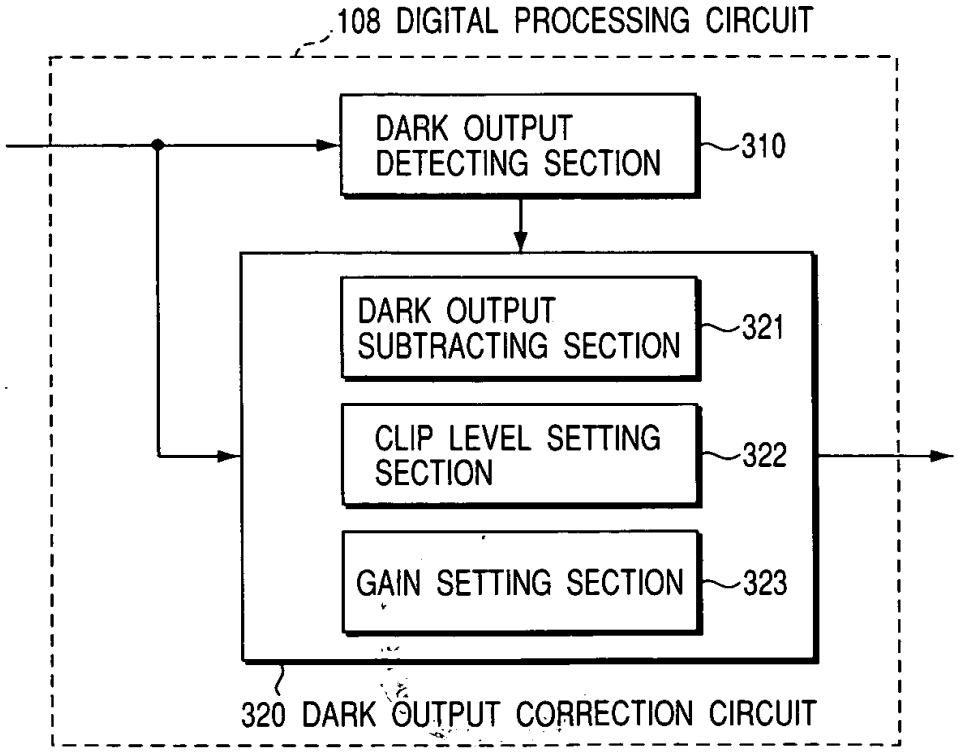
108 DIGITAL PROCESSING CIRCUIT
DARK OUTPUT DETECTING SECTION
310
DARK OUTPUT SUBTRACTING SECTION
321
CLIP LEVEL SETTING SECTION
322
GAIN SETTING SECTION
323
320 DARK OUTPUT CORRECTION CIRCUIT

FIG. 3

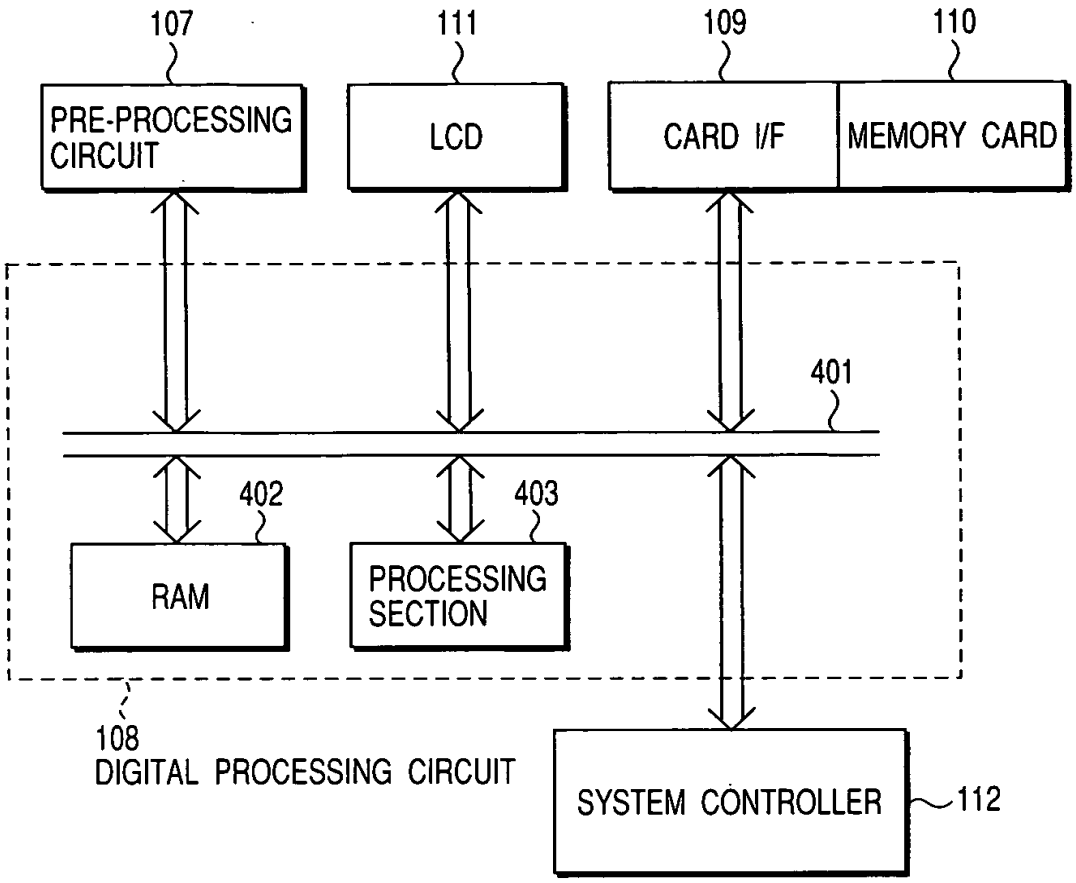

FIG. 4

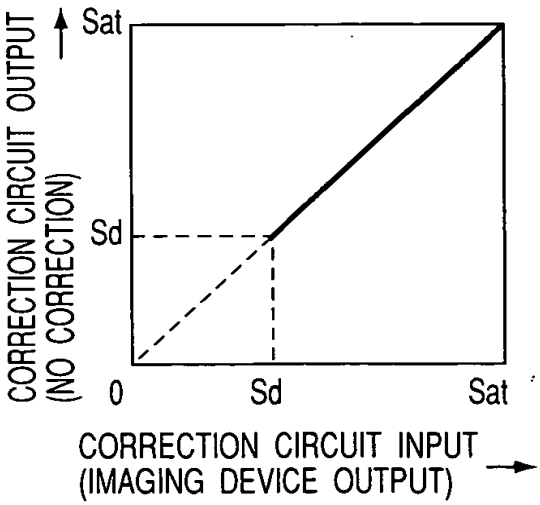

FIG. 5A

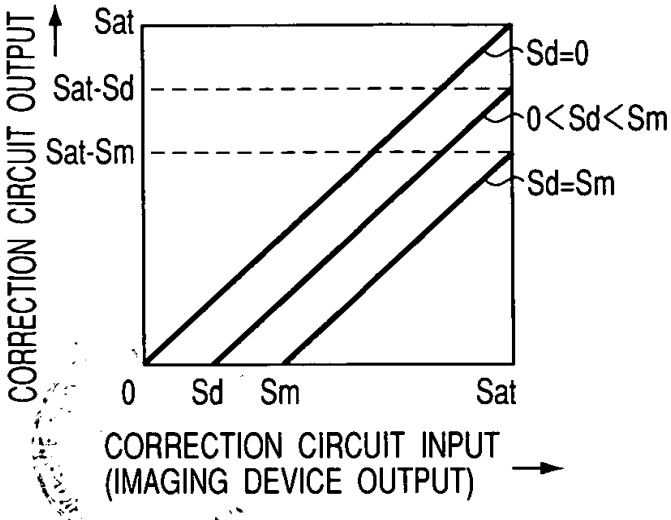

FIG. 5B

09726562 - 052404

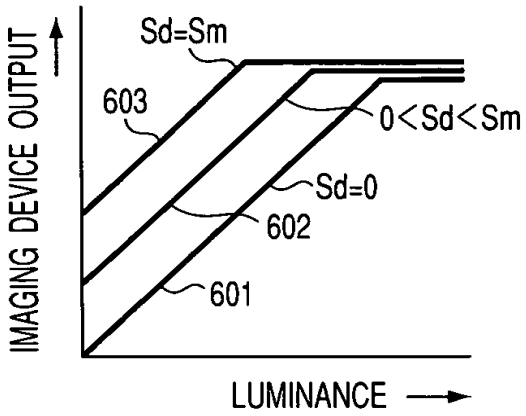

FIG. 6A

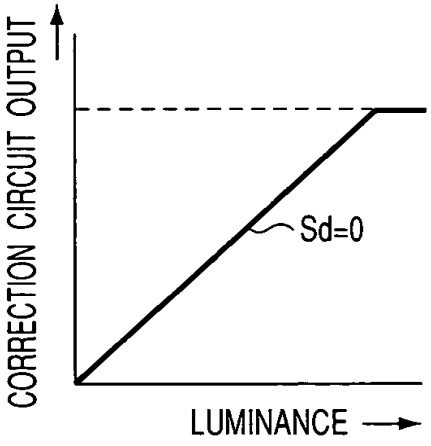

FIG. 6B

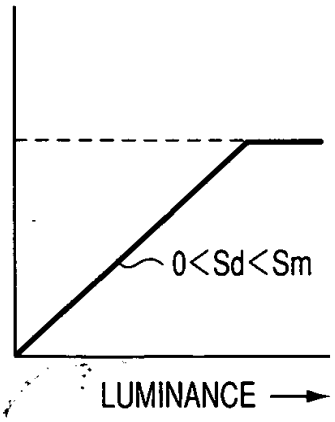

FIG. 6C

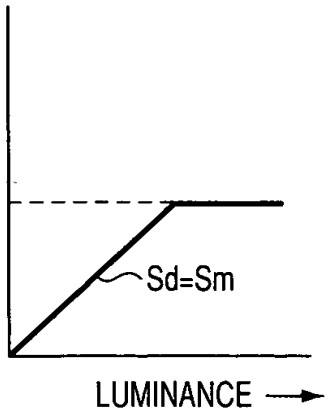

FIG. 6D

EP 0 954 169 A2

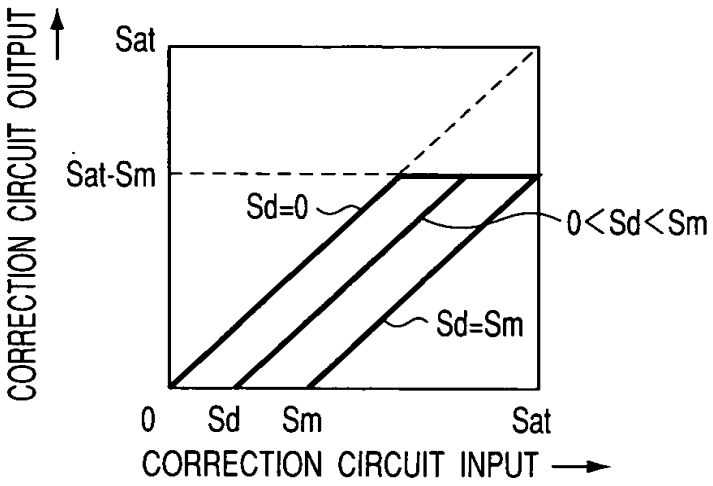

FIG. 7A

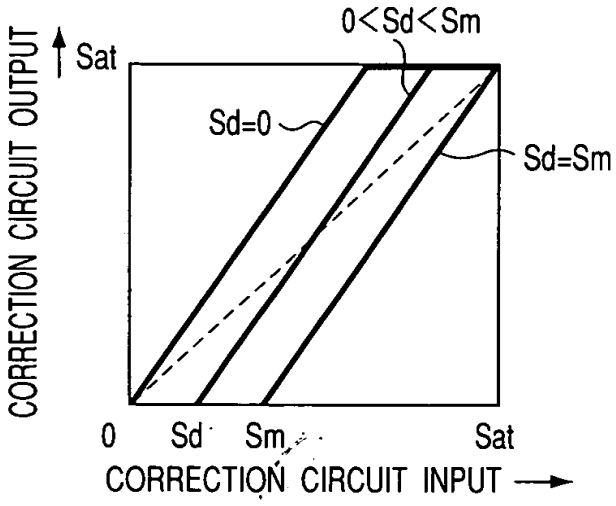

FIG. 7B

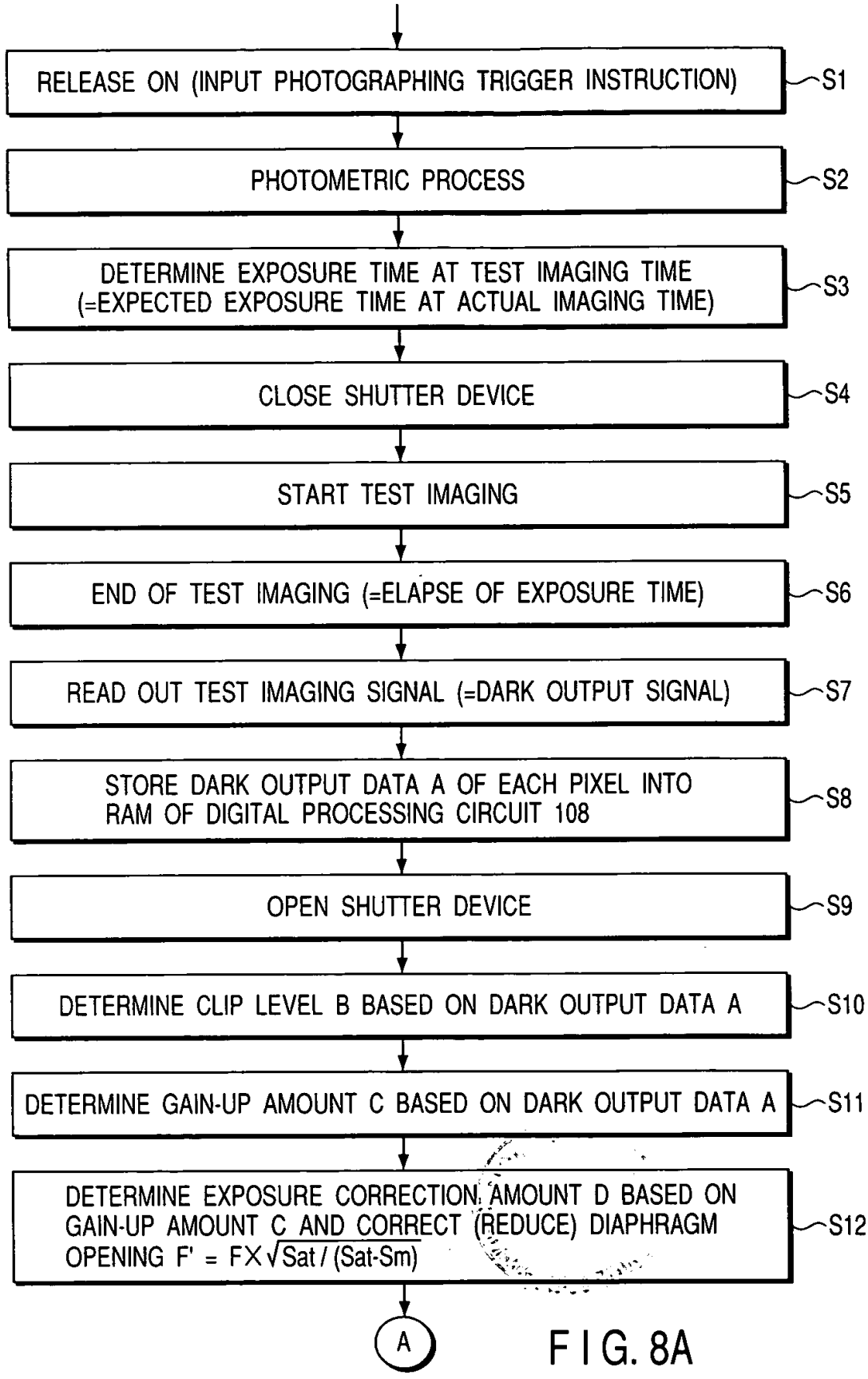
RELEASE ON (INPUT PHOTOGRAPHING TRIGGER INSTRUCTION)
S1
PHOTOMETRIC PROCESS
S2
DETERMINE EXPOSURE TIME AT TEST IMAGING TIME (=EXPECTED EXPOSURE TIME AT ACTUAL IMAGING TIME)
S3
CLOSE SHUTTER DEVICE
S4
START TEST IMAGING
S5
END OF TEST IMAGING (=ELAPSE OF EXPOSURE TIME)
S6
READ OUT TEST IMAGING SIGNAL (=DARK OUTPUT SIGNAL)
S7
STORE DARK OUTPUT DATA A OF EACH PIXEL INTO RAM OF DIGITAL PROCESSING CIRCUIT 108
S8
OPEN SHUTTER DEVICE
S9
DETERMINE CLIP LEVEL B BASED ON DARK OUTPUT DATA A
S10
DETERMINE GAIN-UP AMOUNT C BASED ON DARK OUTPUT DATA A
S11
DETERMINE EXPOSURE CORRECTION AMOUNT D BASED ON GAIN-UP AMOUNT C AND CORRECT (REDUCE) DIAPHRAGM OPENING F' = F×√Sat / (Sat-Sm)
S12
A

FIG. 8A

09726652.052401

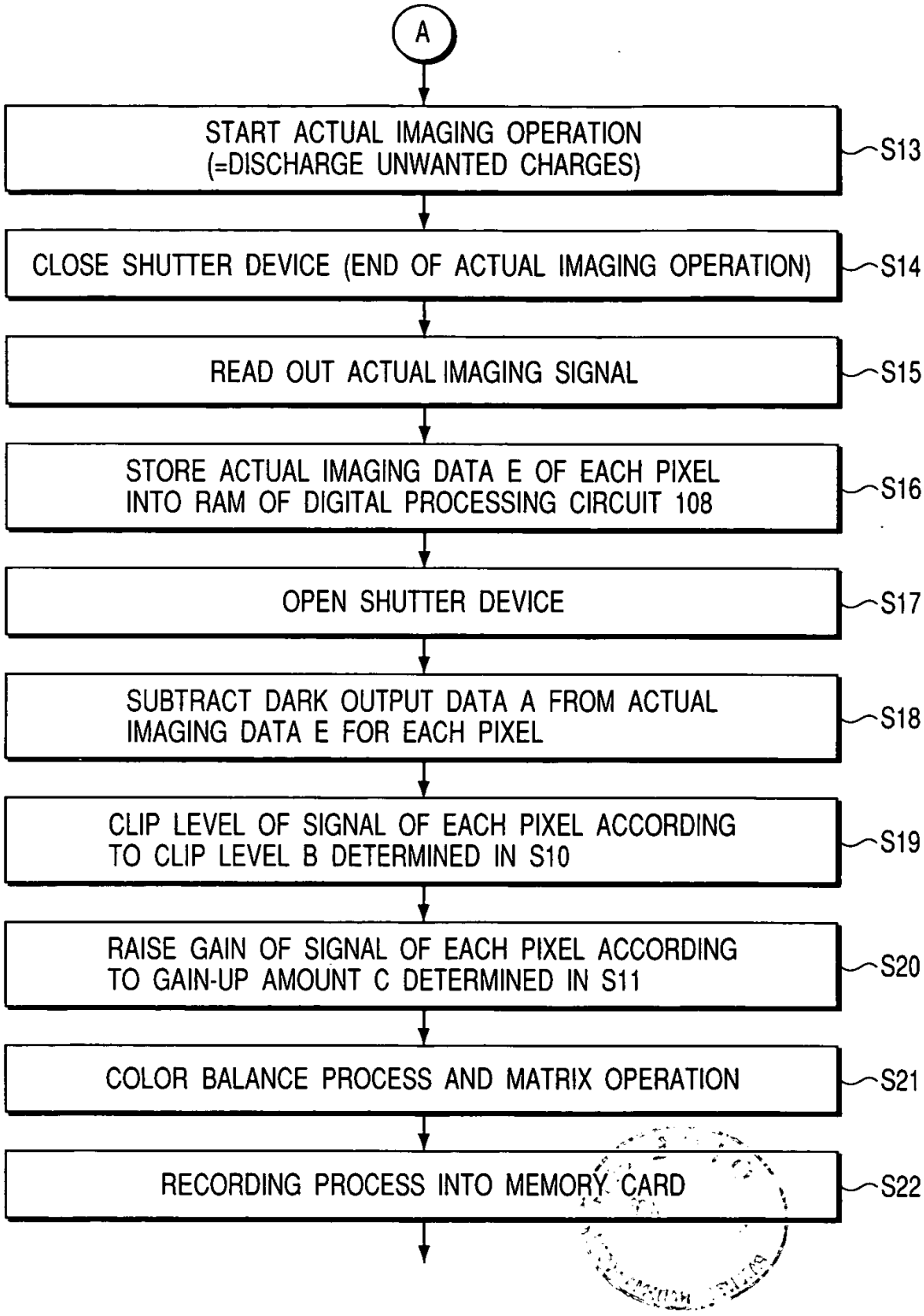

FIG. 8B